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| 09/357,593      | 07/20/1999  | NEIL Y. IWAMOTO      | 36J.P227            | 9444             |

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EXAMINER

RAHIMI, IRAJ A

ART UNIT

PAPER NUMBER

2622

DATE MAILED: 12/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/357,593

Applicant(s)

IWAMOTO ET AL.

Examiner

(Iraj) Alan Rahimi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 July 1999.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 September 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

***Specification***

1. Applicant is reminded of the proper language and format for an abstract of the disclosure. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Abstract contains the word "said" in several places. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer (US patent 5,793,414) in combination with Smith et al. (US patent 6,385,655).

As detailed below, the rejection is based on the teachings of Shaffer and Smith et al. Where Shaffer discloses a bi-directional communication channel connecting a central information facility (like cable head end) with a print processor for converting a viewer selected image to control signal for printing the image on a system user's dumb printer connected to a set top box. And Smith teaches a method and apparatus for secure transmission of data over an electronic communication network similar to communication network of Shaffer. Smith teaches that secure transmission is achieved by encrypting the image data and using secured socket layer (SSL) as a secure transmission protocol. In Shaffer Program Control Computer 16 is considered to be same as cable head end which is connected to set top box and printer. In the Smith et al. reference, the Sender 20 is considered to be similar to the cable head end, dedicated server 22 similar to the set top box and printer 26 same as the printer connected to set top box.

4. Regarding claim 1, Shaffer discloses a method for the secure printing of print data from a client application residing on a data network to a set top box 14 which has a printer 26, said set top box residing on a digital cable network which has a cable head end for interfacing said digital cable network to said data network, said method comprising the steps of:

generating print data in said client application (column 3, lines 27-32);  
transmitting, in response to a determination that said secure communication path exists, said print data from said client application to said set top box (column 3, lines 49-55); and  
sending said print data from said set top box to said printer for printing (column 3, lines 52-55).

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However, Shaffer does not teach determining whether a secure communication path exists between said client application and said set top box. Smith et al. teaches using certificate authentication as a layer for securing communication (column 20, lines 41-49). Shaffer and Smith et al. are analogous art because they are from the same field of endeavor that is data communication in a network environment. Therefore, it would have been obvious to a person skilled in the art, at the time of invention to combine data security features of Smith et al. with communication arrangement of Shaffer to provide a method for securely delivering documents over an electronic network, such as Internet.

Regarding claim 2, Smith et al. discloses a method according to Claim 1, wherein the step for determining whether a secure communication path exists between said client application and said set top box includes the use of a secure protocol between said client application and said cable head end, and between said cable head end and said set top box (column, lines 52-56).

Regarding claim 3, Smith et al. discloses a method according to claim 2, wherein the step for determining whether a secure communication path exists between said client application and said set top box further includes a confirmation through said secure protocol, that said cable head end is a secure location, and a confirmation, through said secure protocol, that said set top box is a secure location (column 20, lines 41-49). Smith et al. teaches using certificate authentication as a layer for securing communication.

Regarding claim 4, Shaffer discloses a method according to Claim 1, wherein the step for transmitting said print data from said client application to said set top box includes sending said print data from said client application to said cable head end in a device-independent format, transforming said print data from said device-independent format to a rasterized format which corresponds to said printer, and then sending said print data in said rasterized format from said cable head end to said set top box for printing on said printer (column 4, lines 53-66). Shaffer does not teach transmitting print data in response to a determination that said secure communication path exists, nor does he teach transferring data in device independent format. Smith et al. teaches using certificate authentication for determining a secure communication (column 20, lines 41-49) and device (platform) independent formatted document such as HTML and PDF (column 4, lines 65-67 and column 5, lines 1-11). Shaffer and Smith et al. are analogous art because they are from the same field of endeavor that is data communication in a network environment. Therefore, it would have been obvious to a person skilled in the art, at the time of invention to combine data security features of Smith et al. with communication arrangement of Shaffer to provide a method for securely delivering documents over an electronic network, such as Internet.

Regarding claim 5, Shaffer discloses a method according to Claim 1, wherein the set for transmitting said print data from said client application to said set top box includes said print data, sending said print data from said client application to said cable head end, sending said print data from said cable head end to said set top box, said print data, and sending the print data to said printer for printing (column 3, lines 43-55 and column 4, lines 53-67). However, Shaffer

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dos not teach transmitting print data in response to a determination that said secure communication path exists, nor does he teach that the print data is encrypted. Smith et al. teaches again using certificate authentication for determining a secure communication (column 20, lines 41-49) and encrypted print data being transmitted (column 8, lines 51-61) to the set top box and decrypted (column 1, lines 51-60) for printing by the printer.

Regarding claim 6, Smith et al. discloses a method according to claim 3, wherein said confirmation that said set top box is a secure location is sent from said set top box to said cable head end. Smith et al. teaches in column 5, lines 56-67) that the receiving device (printer 26) receives the stored document from the dedicated server 22 (same as set top box). He additionally teaches in column 5, lines 41-49 that certificate authentication is used to determine a secure location.

Regarding claim 7, Smith et al. discloses a method according to Claim 3, wherein said confirmation that said cable head end is a secure location is sent from said cable head end to said client application. Smith et al. in column 20, lines 41-49 discloses several layers of security in place from the sending end all the way to the receiving end, which includes communication between the dedicated server 22 (same as set top box) and the sender computer 20 (same as cable head end).

Regarding claim 8, arguments analogous to those presented for claim 4, are applicable.

Regarding claim 9, Smith et al. discloses a method according to Claim 2, wherein said secure protocol is a secure sockets layer protocol (column 6, lines 52-5).

Regarding claim 10, Smith discloses a method according to Claim 2, wherein the step for determining whether a secure communication path exists between said client application and said set top box includes the transmission of at least one certificate from said set top box to said cable head end and the transmission of at least one certificate from said cable head end to said client application (column 20, lines 41-49).

Regarding claim 11, arguments analogous to those presented for claims 1 and 4, are applicable.

Regarding claim 12, arguments analogous to those presented for claims 1, 4 and 5, are applicable.

Regarding claim 13, Shaffer discloses an apparatus for the secure printing of print data from a client application residing on a data network to a set top box which has a printer, said set top box residing on a digital cable network which has a cable head end for interfacing said digital cable network to said data network, comprising:

a program memory (program control computer 16 holds the memory for processing commands such as ROM, well known in the art) for storing process steps executable to perform a method according to any of claims 1 to 12; and



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a processor (program control computer 16) for executing the process steps stored in said program memory.

Regarding claims 14 and 15, arguments analogous to those presented for claim 1, are applicable.

***Other prior art cited***

5. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure.

US patent 5,870,544 issued to Curtis teaches method for creating secure connection and US patent 6,023,764 issued by the same inventor teaches method and apparatus for providing security certificate management.

***Contact Information***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to (Iraj) Alan Rahimi whose telephone number is 703-306-3473.

The examiner can normally be reached on Mon.-Fri. 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L Coles can be reached on 703-305-4712. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3800.



Alan Rahimi  
November 22, 2002



EDWARD COLES  
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